

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Hugh L. Brunk

Art Unit: 2134

Application No.: **10/045,654**

Confirmation No.: 1906

Filed: October 26, 2001

For: INCLUDING A METRIC IN A  
DIGITAL WATERMARK FOR  
MEDIA AUTHENTICATION

**Via Electronic Filing**

Examiner: W. Powers

Date: February 20, 2008

**REPLY BRIEF**

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Sir:

Appellants respectfully request the Board of Patent Appeals and Interferences (hereafter the “Board”) to reverse the outstanding final rejections of the claims.

This Reply Brief responds to the Examiner’s Answer mailed **January 16, 2008**.

(A previous Examiner’s Answer was mailed on December 11, 2007. This Reply responds to the more recent January 16, 2008 Examiner’s Answer.)

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### ALLOWED CLAIMS

Appellants appreciate the indication that claims 1-9 and 11-14 are allowed and that claims 20-22 recite allowable subject matter and are merely objected to for their dependency on a rejected base claim. Please see the January 16, 2008 Examiner's Answer, page 7, line 1 of paragraph 10 – page 8, line 2.

### STATUS OF AMENDMENTS

All amendments have been entered.

### GROUND OF REJECTION TO BE REVIEWED ON APPEAL

1. Claims 15-19, 23 and 25-27 stand finally rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,330,672 (hereafter “the Shur patent”).

### ARGUMENT

Appellants respectfully request that the final rejection of claims 15-19, 23 and 25-27 be reversed since the Shur patent fails to anticipate each and every feature of these claims.

#### *Rejections under U.S.C. 102(e) over the Shur patent*

##### Claim 25

Claim 25 recites:

25. A digital watermarking method comprising:  
*embedding a digital watermark in a media signal, the digital watermark being designed to be lost or to degrade upon at least one form of signal processing;*  
*determining a metric for the embedded digital watermark, the metric comprising a benchmark for the embedded digital watermark;*  
*embedding the metric in the media signal; and*  
*embedding data in the media signal, the data indicating how the metric was determined.*

We respectfully refer the Board to our Appeal Brief, pages 9-11, where we discuss three reasons supporting reversal of the final rejection of claim 25. Reason number three merits further discussion in view of the Examiner's Answer (January 16, 2008).

We start from the position of: "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegall Bros., Inc. v. Union Oil Co. of Cal.*, 814 F.2d 628, 631 (Fed. Cir. 1987). Indeed, it is well settled that in order for an Examiner to establish a *prima facie* case of anticipation, each and every element of the claimed invention, arranged as required by the claim, must be found in a single prior art reference, either expressly or under the principles of inherency. See generally, *In re Schreiber*, 128 F.3d 1473, 1477 (Fed. Cir. 1997).

The final rejection is faulty – including the comments provided in the Examiner's Answer – because the Shur patent does not show either expressly or inherently each and every element in claim 25. In particular, the Shur patent does not anticipate: "embedding data in the media signal, the data indicating how the metric was determined," in combination with the other features of claim 25.

The Examiner's Answer unreasonably applies the Shur patent at Col. 4, lines 13-34 to meet this feature. See the Examiner's Answer on page 9, lines 8-13.

For context, the Examiner's Answer maps claim 25's "metric" to a permitted number of plays carried by a digital watermark. Please see page 9, lines 3-5, of the Examiner's Answer. Thus, applying this line of reasoning to the metric, the Shur patent needs to indicate how the permitted number of plays was determined.

But the Shur patent is silent in this regard.

Moreover, the Examiner's Answer argues that watermark indicia may refer to a type of transaction that is purchased by the user, namely a lease of media stream, and the limitations of that transaction, i.e., the number of permitted plays. See the Examiner's Answer on page 9, lines 11-13. This reasoning does not support the final rejection since even if the watermark carried such information (i.e., a lease and a number of permitted plays) that information would still not include data indicating how a metric is determined.

The Shur patent fails to anticipate claim 25.

We respectfully request reversal of the final rejection of claim 25.

Claim 19

Claim 19 recites:

19. *A digital watermarking method comprising:  
embedding a digital watermark in a media signal;  
analyzing the digital watermark embedded in the media signal to determine a baseline state for the digital watermark;  
embedding first information in the media signal, the first information corresponding to the baseline state of the digital watermark; and  
embedding second information in the media signal, the second information corresponding to a rendering channel through which the media signal will be rendered.*

We respectfully refer the Board to our Appeal Brief on pages 13-14 for reasons supporting reversal of the final rejection.

One point merits further discussion in view of the Examiner's Answer.

Claim 19 recites, in combination with other features, i) embedding first information corresponding to a baseline state of a digital watermark; and ii) embedding second information in the media signal, the second information corresponding to a rendering channel through which the media signal will be rendered.

The second information is in addition to first information.

The Examiner's Answer suggests that the Shur patent teaches second information by discussing "data that limits the permissible number of plays" (e.g., a number). Please see page 10, lines 13-14, of the Examiner's Answer.

But the Examiner's Answer applies this same feature (i.e., a permitted number of plays) to teach the first information. Please see the Examiner's Answer page 5, lines 10-11 ("c. Embedding the number of plays allowed for the digital data in the media stream (col. 10, lines 1-

11).”<sup>1</sup>

Having the permitted number of plays read on both the first information (corresponding to a baseline state of the watermark) and the second information (corresponding to the rendering channel) stretches the Shur patent beyond a fair and reasonable reading of that work.

We respectfully request reversal of the final rejection of claim 19.

### CONCLUSION AND REQUEST FOR REVERSAL

The Shur patent fails to teach all of the limitations of the finally rejected claims. Appellants respectfully request that the Board reverse the final rejection of these claims.

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Date: February 20, 2008

Customer No.: 23735

Telephone: 503-469-4685

FAX: 503-469-4777

Respectfully submitted,

DIGIMARC CORPORATION

By: /Steven W. Stewart, Reg. No. 45,133/

Steven W. Stewart

Registration No. 45,133

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<sup>1</sup> There seems to be a contradiction in the Examiner's Answer. On page 5, under the "claims 19 and 23" heading, the Examiner's Answer applies the Shur patent's discussion of a number of permitted plays to meet the first information recited in claim 19, and the encoding algorithm to meet the second information recited in claim 19. We addressed *that* rejection in the Appeal Brief. But on page 10, lines 9-19, of the Examiner's Answer, a new position is presented that the recited second information is taught by the number of permitted plays.